

REMARKS/ARGUMENTS

Status of the application:

Prior to the Office Action dated April 2, 2007, claims 1-7 were pending in this case. In the Office Action the Information Disclosure Statement ("IDS") was rejected for failing to comply with the provisions of 37 CFR 1.98(a)(1)(iii) because each page of the IDS did not include a heading clearly indicating the list was an information disclosure statement, the drawings were objected to because Fig. 1 did not include the reference signs mentioned in the specification, claims 1-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,335,067 to Prather *et al.* ("Prather") and claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,407,042 to Slentz *et al.* ("Slentz") in view of Prather.

In this response, Applicants have provided an amended IDS and a replacement sheet with an amended Fig. 1. Furthermore, claims 1, 6 and 7 are amended and new claims 9-12 are added. Thus, with regard to the claims, after entry of the amendment, claims 1-7 and 9-12 are presented for examination. No new matter is added by the amendment to the drawings, new claims 9-12 or the amendments to claims 1, 6 and 7. Support for the amendments and new claims may be found, *inter alia*, at page 5, line 26 through page 6, line 9 of the specification. Reconsideration of the subject application as amended is respectfully requested.

Objection to the Drawings

In the Office Action, Fig. 1 was objected to on the basis that the figure did not contain the reference signs mentioned in the specification. A replacement sheet providing an amended Fig. 1 is attached with this response. The amended Fig. 1 includes reference signs that correspond to the reference signs provided in the specification. Additionally, for clarity, a dashed outline has been placed around the individual components of the optical analyzer 2. No new matter has been added by the amendments to Fig. 1.

Claim Rejections Under 35 U.S.C. § 102(b)

In the Office Action, claims 1-6 were rejected under 35 U.S.C. § 102 as being anticipated by Prather. Independent claims 1, 6 and 7, as amended, include limitations that the sampled water is flowed in a flowline, a colouring agent is added to the flowing sample and the resulting mixture is colorimetrically analyzed at a downstream location.

Prather discloses a spectrophotometric probe. The spectrophotometric probe is configured to collect a sample of a fluid, hold the collected sample stationary and then analyze properties of the stationary sample. (See Prather Col. 6, l. 66 through Col. 7, l. 4). As such, Prather does not disclose the dynamic systems and methods of the invention of independent claims 1, 6 and 7, as amended. Additionally, Prather does not disclose injecting a colouring agent into fluid sample. To the contrary, Prather only provides disclosure regarding use of a static indicator (colouring agent) in the form of a coating on an optical fiber. Furthermore, Prather provides no teaching regarding how to mix a sample and a colouring agent *in situ* for downhole analysis.

Consequently, Applicants respectfully submit that Prather does not teach all of the limitations of independent claims 1, 6 and 7 as amended. Hence, independent claims 1, 6 and 7 are not anticipated by Prather. It is therefore respectfully requested that the §102(b) rejections of independent claim 1, 6 and 7 and dependent claims 2- 5 be withdrawn.

Claim Rejections Under 35 U.S.C. § 103(a)

As provided above, the Prather reference does not disclose all of the limitations of independent claims 1, 6 and 7 as amended; namely it doesn't disclose flowing a sample in a flowline, injecting a colouring agent and colorimetrically analyzing the combined mixture of the sample and colouring agent *in situ*. The Slentz reference describes a visualization method for analyzing filtrate invasion of wellbore fluids. (See Slentz, Col. 1, l. 69 through Col. 2, l. 3). Like Prather, Slentz does not teach or suggest, among other things, injecting a colouring agent into a flowing water sample and then analyzing the resulting mixture at a downstream location.

Thus, because the cited references, Slentz and Prather, considered in combination, do not teach all, of the limitations of claims 1, 6 and 7 as amended, Applicants respectfully request that the 35 U.S.C § 103(a) rejection be withdrawn.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner is contemplating any action other than allowance of all pending claims, the Examiner is urged to contact Applicant's representative, Vincent Loccisano, at (617) 768-2270.

In the event that a fee or refund is due in connection with this Amendment, the Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No 19-0615.

Respectfully submitted,



Vincent Loccisano
Registration No. 55,397

Schlumberger Doll Research Center
I.P. Law Department
P.O. Box 425045
Cambridge, MA 02142
Phone: (617) 768-2270
Fax: (617) 768-2402